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Inventor: Richard M. Ehrlich
Docket No.: PANA-01046USC

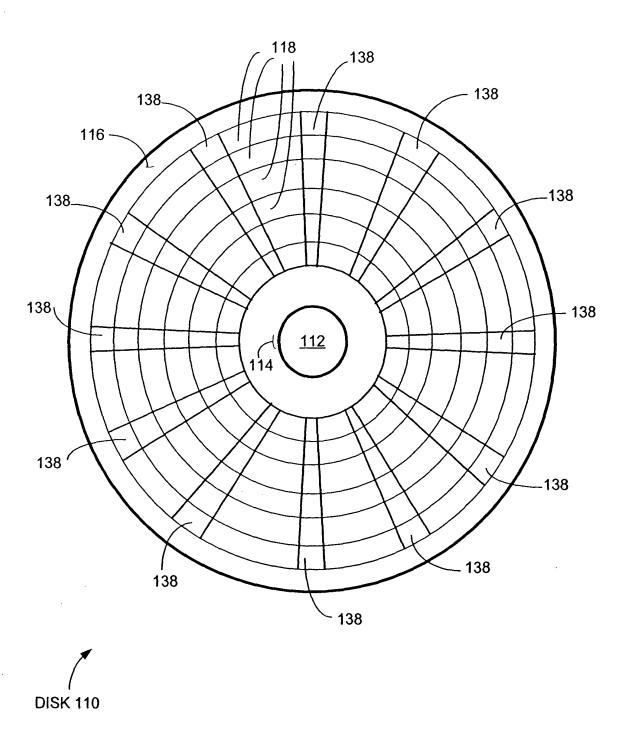
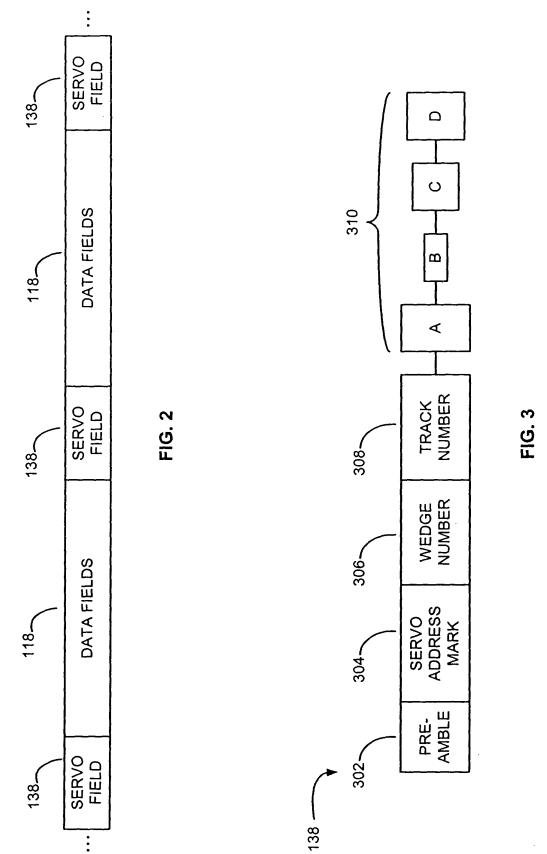
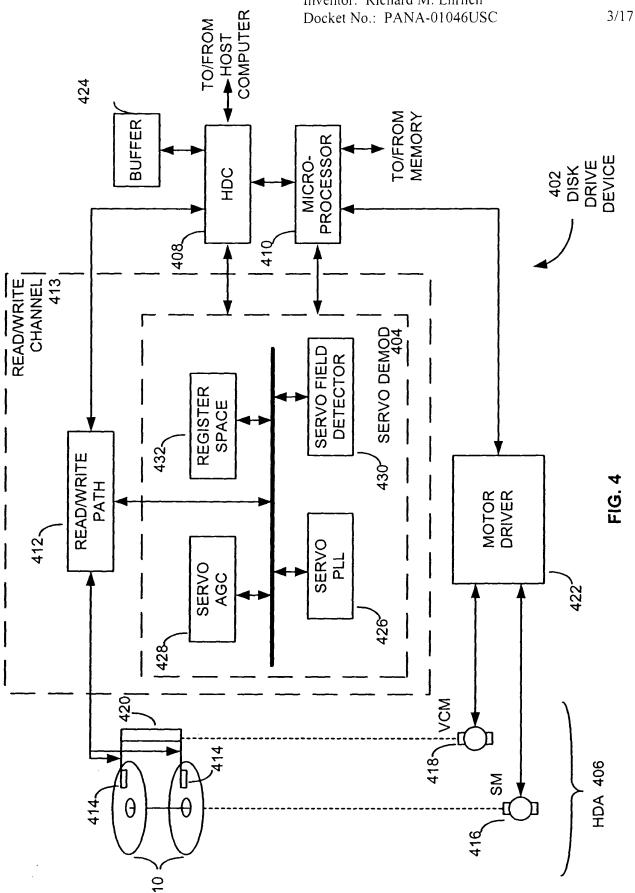


FIG. 1

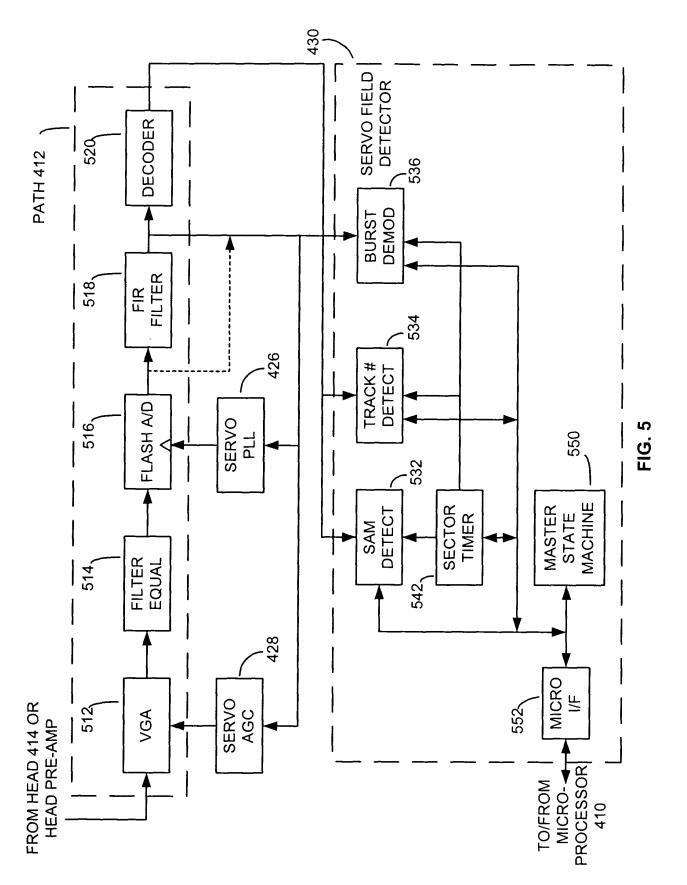
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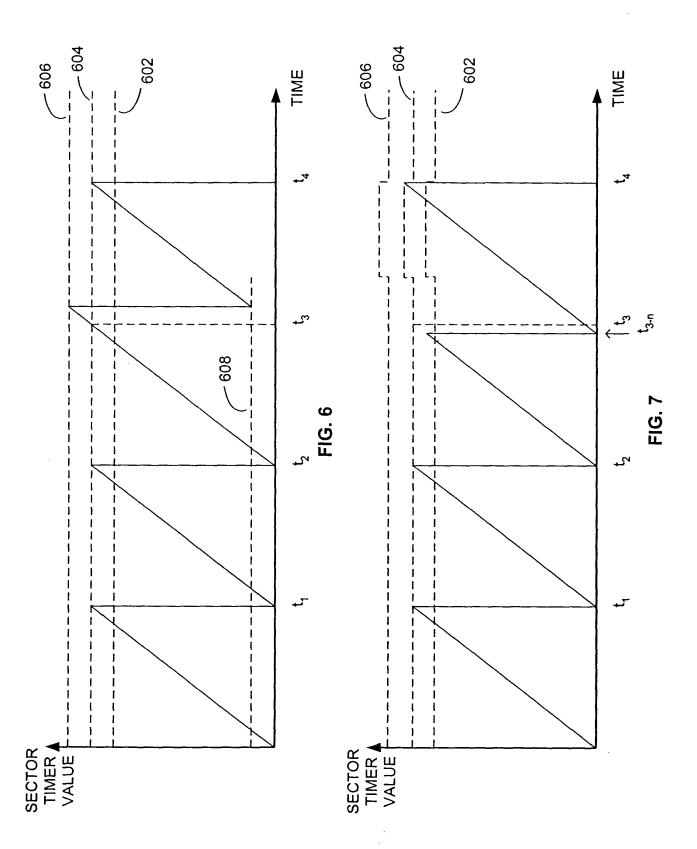


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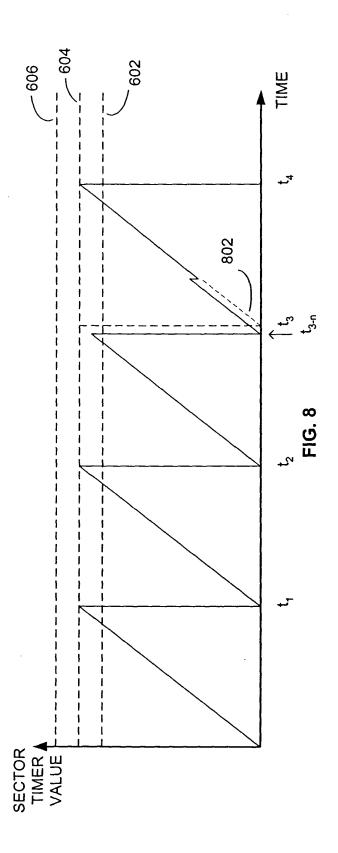
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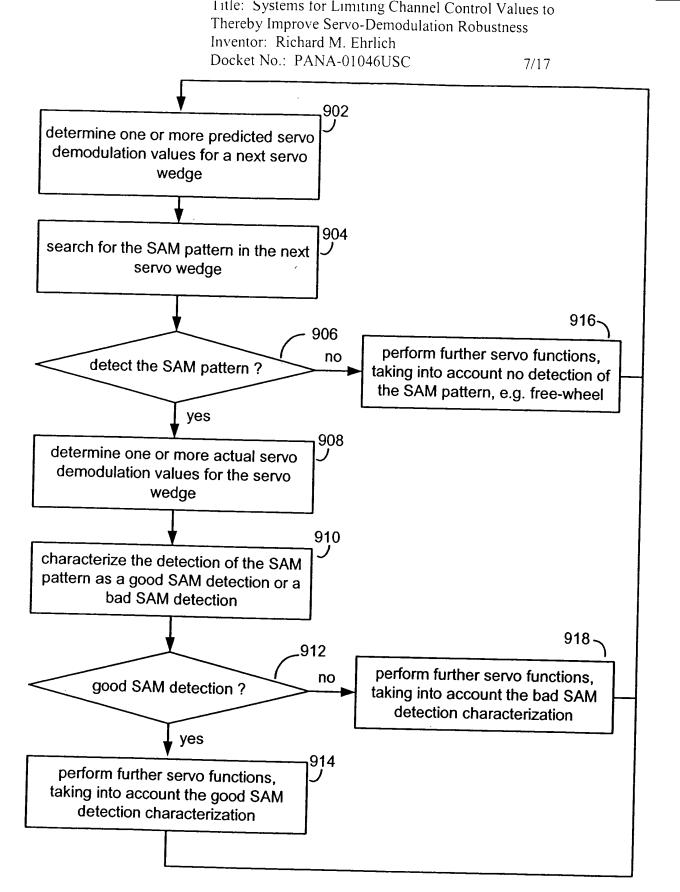


FIG. 9

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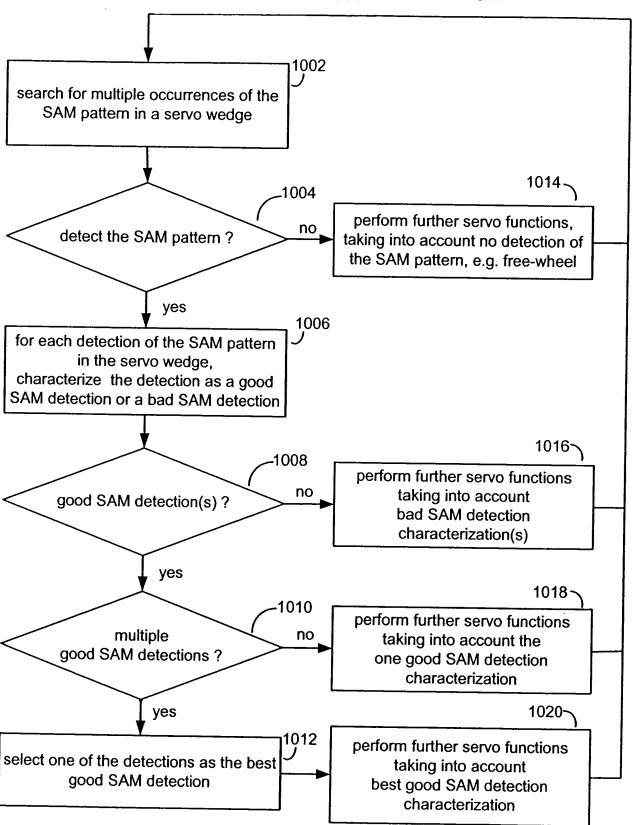


FIG. 10

Inventor: Richard M. Ehrlich Docket No.: PANA-01046USC 9/17 1102 search for the SAM pattern in a servo wedge 1112. 1104 select at least one previously stored channel control value as, or to no detect the SAM pattern? predict, a starting channel control value for use when beginning to read a next servo wedge yes 1106 characterize the detection as a good SAM detection or a bad SAM detection 1108 no good SAM detection? 1110 1114 yes select at least one channel control store at least one channel control value value stored at step 1110 as, or to (e.g., servo AGC value and/or servo predict, a starting channel control PLL value) associated with the servo value for use when beginning to wedge read a next servo wedge

Thereby Improve Servo-Demodulation Robustness

FIG. 11A

Little. Systems for Limiting Channel Control Values to Thereby Improve Servo-Demodulation Robustness Inventor: Richard M. Ehrlich Docket No.: PANA-01046USC 10/17 1122 search for the SAM pattern in a servo wedge -1124 store at least one channel control value (e.g., servo AGC value and/or servo PLL value) associated with the servo wedge 1132-1126 select at least one previously stored channel control value as, or to no detect the SAM pattern? predict, a starting channel control value for use when beginning to read a next servo wedge yes 1128 characterize the detection as a good SAM detection or a bad SAM detection

1130

good SAM detection?

select at least one channel control value stored at step 1124 as, or to predict, a starting channel control value for use when beginning to read a next servo wedge

yes

no

1134

FIG. 11B

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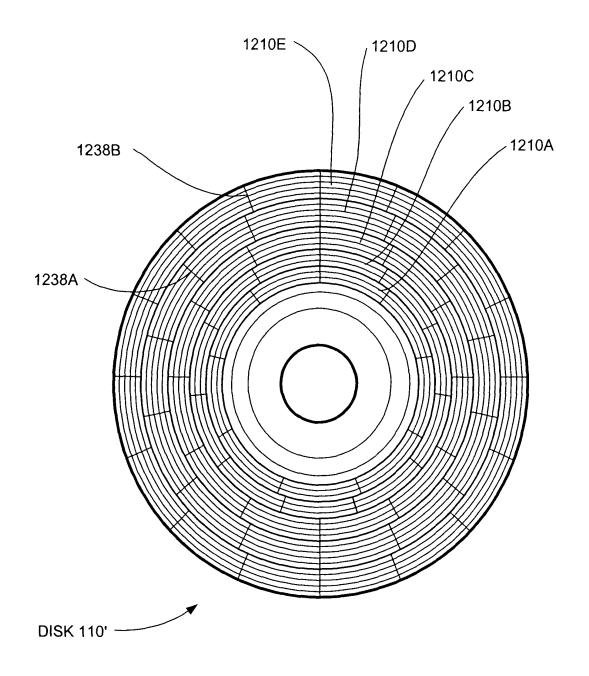
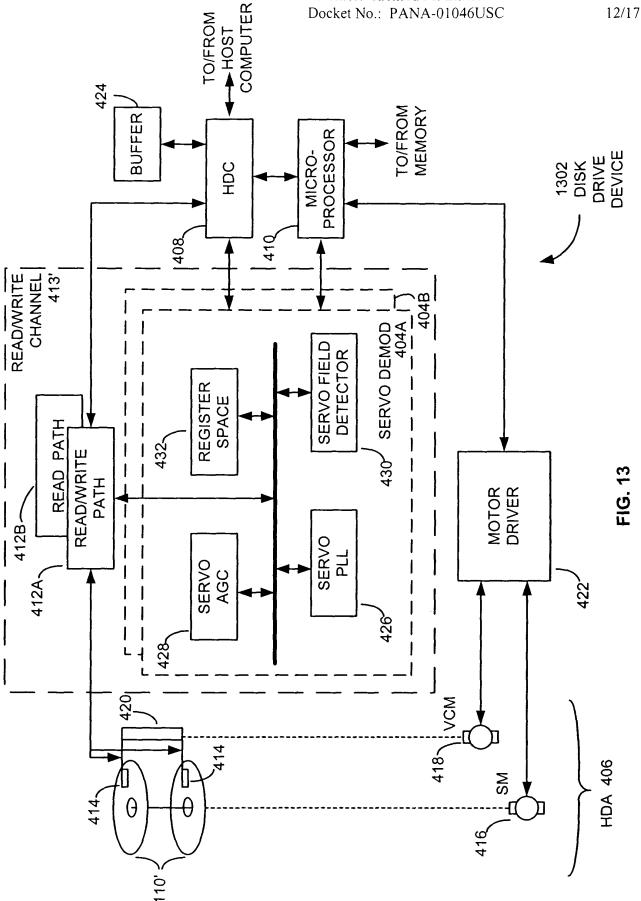


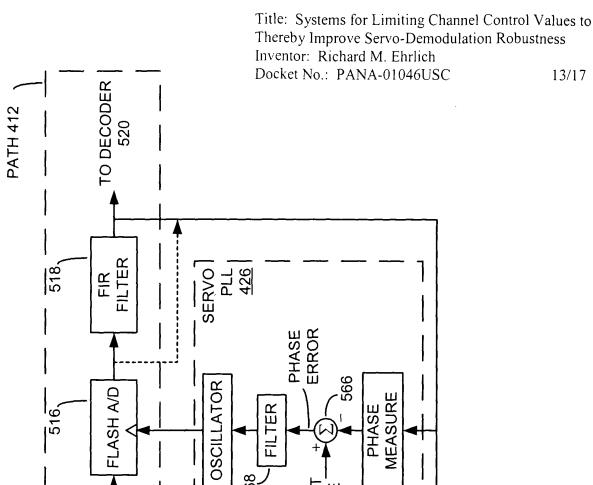
FIG. 12

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PHASE MEASURE

564



FILTER

TARGET PHASE

_AMPLITUDE ___ERROR

FILTER

558

556

AMPLITUDE TARGET

AMPLITUDE MEASURE

554

268

SERVO AGC 428

FLASH A/D

FILTER EQUAL

VGA

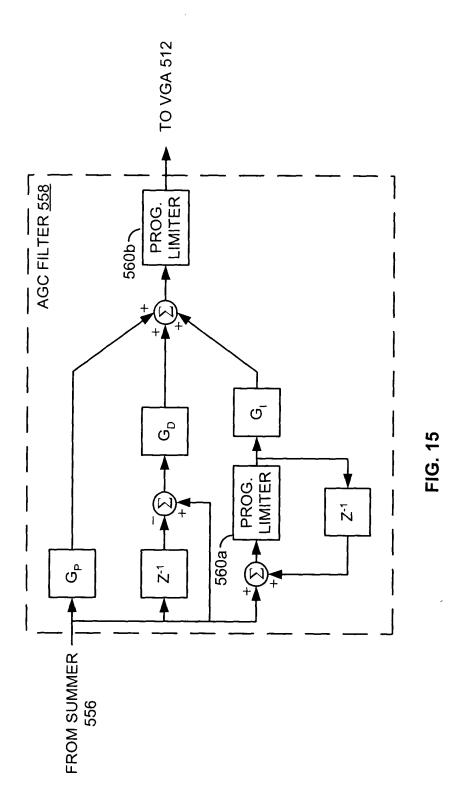
516

514

512

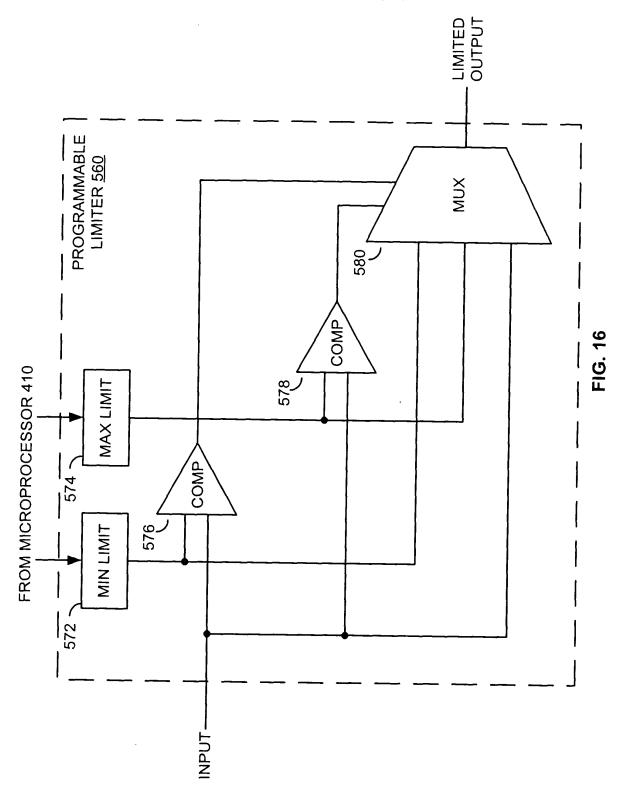
FROM HEAD 414 OR HEAD PRE-AMP

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Thereby Improve Servo-Demodulation Robustness Inventor: Richard M. Ehrlich Docket No.: PANA-01046USC 16/17 -1702 read a servo wedge to produce a servo signal therefrom -1704 measure the servo signal to produce a measured value (e.g., amplitude or phase) 1706 produce an error signal by comparing the measured value to a target (e.g., target amplitude or target phase) 1708 filter the error signal to produce a channel control value (e.g., servo AGC value or servo PLL value) -1710 limit the channel control value (as necessary) to keep it within a desired range, before using the channel control value for feedback

Title: Systems for Limiting Channel Control Values to

FIG. 17

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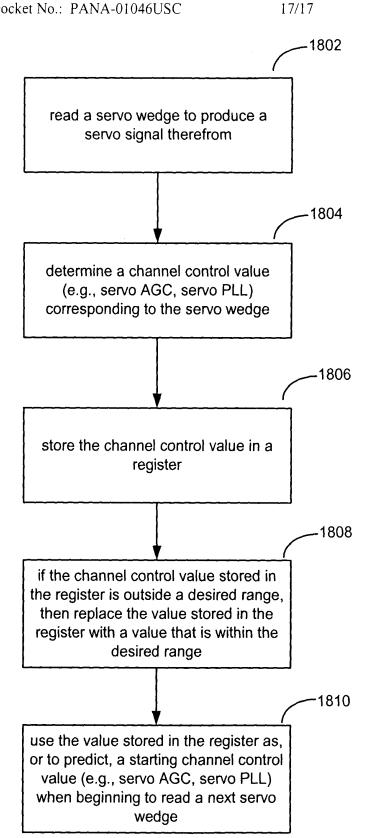


FIG. 18